

September 22, 2015

Tom Moe  
USS Corporation  
P.O. Box 417  
Mountain Iron, MN 55768

RE: Project: NPDES-TB WK1  
Pace Project No.: 1253016

Dear Tom Moe:

Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Heather R Zika  
heather.zika@pacelabs.com  
Project Manager

Enclosures

cc: Terri Sabetti, Northeast Technical



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: NPDES-TB WK1

Pace Project No.: 1253016

### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
A2LA Certification #: 2926.01  
Alaska Certification #: UST-078  
Alaska Certification #MN00064  
Alabama Certification #40770  
Arizona Certification #: AZ-0014  
Arkansas Certification #: 88-0680  
California Certification #: 01155CA  
Colorado Certification #Pace  
Connecticut Certification #: PH-0256  
EPA Region 8 Certification #: 8TMS-L  
Florida/NELAP Certification #: E87605  
Guam Certification #:14-008r  
Georgia Certification #: 959  
Georgia EPD #: Pace  
Idaho Certification #: MN00064  
Hawaii Certification #MN00064  
Illinois Certification #: 200011  
Indiana Certification#C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky Dept of Envi. Protection - DW #90062  
Kentucky Dept of Envi. Protection - WW #:90062  
Louisiana DEQ Certification #: 3086  
Louisiana DHH #: LA140001  
Maine Certification #: 2013011  
Maryland Certification #: 322  
Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137  
Mississippi Certification #: Pace  
Montana Certification #: MT0092  
Nevada Certification #: MN\_00064  
Nebraska Certification #: Pace  
New Jersey Certification #: MN-002  
New York Certification #: 11647  
North Carolina Certification #: 530  
North Carolina State Public Health #: 27700  
North Dakota Certification #: R-036  
Ohio EPA #: 4150  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon Certification #: MN200001  
Oregon Certification #: MN300001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification  
Saipan (CNMI) #:MP0003  
South Carolina #:74003001  
Texas Certification #: T104704192  
Tennessee Certification #: 02818  
Utah Certification #: MN000642013-4  
Virginia DGS Certification #: 251  
Washington Certification #: C486  
West Virginia Certification #: 382  
West Virginia DHHR #:9952C  
Wisconsin Certification #: 999407970

### Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792  
Alaska Certification #MN01084  
Arizona Department of Health Certification #AZ0785  
Minnesota Dept of Health Certification #: 027-137-445  
North Dakota Certification: # R-203

Wisconsin DNR Certification # : 998027470  
WA Department of Ecology Lab ID# C1007  
Nevada DNR #MN010842015-1  
Oklahoma Department of Environmental Quality

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## SAMPLE SUMMARY

Project: NPDES-TB WK1

Pace Project No.: 1253016

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1253016001	SD 001 (Seep 020)	Water	09/09/15 10:40	09/09/15 12:55

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## SAMPLE ANALYTE COUNT

Project: NPDES-TB WK1

Pace Project No.: 1253016

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1253016001	SD 001 (Seep 020)	EPA 1664 TPH	MBL	1	PASI-M
		USGS I-3765	BEM	1	PASI-V
		EPA 300.0	DMB	1	PASI-V

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## ANALYTICAL RESULTS

Project: NPDES-TB WK1

Pace Project No.: 1253016

Sample: SD 001 (Seep 020)		Lab ID: 1253016001		Collected: 09/09/15 10:40		Received: 09/09/15 12:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>1664 SGT-HEM, TPH</b>									
Analytical Method: EPA 1664 TPH									
Total Petroleum Hydrocarbons	ND	mg/L	5.0	0.37	1		09/14/15 11:21		
<b>USGS I-3765 TSS</b>									
Analytical Method: USGS I-3765									
Total Suspended Solids	2.8	mg/L	1.0	1.0	1		09/15/15 10:51		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0									
Sulfate	880	mg/L	20.0	0.89	10		09/18/15 04:03	14808-79-8	

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## QUALITY CONTROL DATA

Project: NPDES-TB WK1

Pace Project No.: 1253016

QC Batch: WET/44090

Analysis Method: EPA 1664 TPH

QC Batch Method: EPA 1664 TPH

Analysis Description: 1664 SGT-HEM, TPH

Associated Lab Samples: 1253016001

METHOD BLANK: 2076596

Matrix: Water

Associated Lab Samples: 1253016001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Petroleum Hydrocarbons	mg/L	ND	5.0	09/14/15 11:21	

LABORATORY CONTROL SAMPLE: 2076597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/L	20	18.2	91	64-132	

MATRIX SPIKE SAMPLE: 2076710

Parameter	Units	1253225001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/L	2.8J	24.4	9.1	26	64-132	M1

SAMPLE DUPLICATE: 2076617

Parameter	Units	1253016001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Petroleum Hydrocarbons	mg/L	ND	2.4J		34	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALITY CONTROL DATA

Project: NPDES-TB WK1

Pace Project No.: 1253016

QC Batch:	WET/20179	Analysis Method:	USGS I-3765
QC Batch Method:	USGS I-3765	Analysis Description:	USGS I-3765 Total Suspended Solids
Associated Lab Samples:	1253016001		

METHOD BLANK: 246657 Matrix: Water

Associated Lab Samples: 1253016001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	1.0	09/15/15 10:50	

LABORATORY CONTROL SAMPLE: 246658

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	239	240	100	80-120	

SAMPLE DUPLICATE: 246659

Parameter	Units	1253210003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	70.0	70.0	0	10	

SAMPLE DUPLICATE: 246660

Parameter	Units	1253135001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	264	288	9	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALITY CONTROL DATA

Project: NPDES-TB WK1

Pace Project No.: 1253016

QC Batch: WETA/13713

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Associated Lab Samples: 1253016001

METHOD BLANK: 247930

Matrix: Water

Associated Lab Samples: 1253016001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	2.0	09/17/15 21:09	

LABORATORY CONTROL SAMPLE: 247931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	50	49.4	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 247932

247933

Parameter	Units	1253210004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	30.6	500	500	516	516	97	97	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 247934

247935

Parameter	Units	1252969001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	18.3	50	50	68.2	68.1	100	100	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: NPDES-TB WK1

Pace Project No.: 1253016

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

PASI-V Pace Analytical Services - Virginia

### BATCH QUALIFIERS

Batch: WET/44090

[BE] Batch extracted by solid phase extraction (SPE).

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES-TB WK1

Pace Project No.: 1253016

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1253016001	SD 001 (Seep 020)	EPA 1664 TPH	WET/44090		
1253016001	SD 001 (Seep 020)	USGS I-3765	WET/20179		
1253016001	SD 001 (Seep 020)	EPA 300.0	WETA/13713		

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**CHAIN-OF-CUSTODY / Analytical Request**  
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed.


**MO# : 1253016**  
PM: HRZ  
CLIENT: USS CORP  
Due Date: 09/23/15

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Required Client Information:</b>		<b>Required Project Information:</b>		<b>Invoice Information:</b>	
Company:	USS Corporation	Report To:	Tom Moe	Attention:	
Address:	P.O. Box 417	Copy To:		Company Name:	
Mt. Iron, MN 55768		Purchase Order #:		Address:	
Email:		Project Name:	NPDES-TB Wk1	Pace Quote:	
Phone:		Project #:		Pace Project Manager:	heather.zika@pacelabs.com
Requested Due Date:				Pace Profile #:	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX Drinking Water DW Waste Water WW Product P Soil/Solid SL Oil O Wipe WP Air AR Other OT Tissue TS	CODE DW WT WW P SL O WP AR OT TS	COLLECTED		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		Preservatives		Analyses Test		Y/N	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
				START DATE TIME	END DATE TIME			Unpreserved H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other		TSS,SO4 TRPH 1664						
1	SD 001 (Seep 020)			WT	9-9-15	10:40	9-9-15	10:40						X		
2														X		
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
ADDITIONAL COMMENTS				REMOVED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
				David L. ...		9-9-15	12:50	Chen ...		9/9/15	12:54	0-9				
						</										

<b>SAMPLER NAME AND SIGNATURE</b>		<b>DATE</b>		<b>TIME</b>		<b>ACCEPTED BY AFFILIATION</b>		<b>DATE</b>		<b>TIME</b>		<b>SAMPLE CONDITIONS</b>	
PRINT Name of SAMPLER:		9-9-15		12:50		Chen		9/9/15		1255		0-9	
SIGNATURE of SAMPLER:													
TEMP In C													
Received on Ice (Y/N)													
Custody Sealed Cooler (Y/N)													
Samples Intact (Y/N)													

	Document Name: <b>Sample Condition Upon Receipt Form</b>	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: <b>F-VM-C-001-Rev.09</b>	Issuing Authority: Pace Virginia, Minnesota Quality Office

Sample Condition Upon Receipt	Client Name: <u>USS Corporation</u>	Project #: <b>WO#: 1253016</b>
	Courier: <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input checked="" type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Other: _____	
Tracking Number: _____		

Custody Seal on Cooler/Box Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Seals Intact? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Optional: Proj. Due Date: _____ Proj. Name: _____
Packing Material: <input type="checkbox"/> Bubble Wrap <input type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input checked="" type="checkbox"/> Other: <u>Hazmat</u>	Temp Blank? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Thermometer Used: <input checked="" type="checkbox"/> 140792808	Type of Ice: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None	<input checked="" type="checkbox"/> Samples on ice, cooling process has begun
Cooler Temp Read °C: <u>0.6</u>	Cooler Temp Corrected °C: <u>0.9</u>	Biological Tissue Frozen? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Temp should be above freezing to 6°C	Correction Factor: <u>0.3</u>	Date and Initials of Person Examining Contents: <u>9/9/15 ms</u>

Chain of Custody			Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name and Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes Date/Time/ID/Analysis Matrix: <u>wt</u>			
All containers needing acid/base preservation will be checked and documented in the pH logbook.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.	
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased): _____			

CLIENT NOTIFICATION/RESOLUTION	Field Data Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Person Contacted: _____	Date/Time: _____
Comments/Resolution: _____	
_____	
_____	
_____	

FECAL WAIVER ON FILE Y N      TEMPERATURE WAIVER ON FILE Y N

Project Manager Review: SEP FOR HRZ      Date: 9-10-15  
 Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)